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10/673,812	09/29/2003	Yuhji Yamashita	JP920020220US1	2216	
29259 677152908 IBM CORPORATION 3039 CORNWALLIS RD. DEPT. T81 / B503, PO BOX 12195 RESEARCH TRIANGLE PARK, NC 27709			EXAMINER		
			FEARER,	FEARER, MARK D	
			ART UNIT	PAPER NUMBER	
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# Please find below and/or attached an Office communication concerning this application or proceeding.

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# Application No. Applicant(s) 10/673,812 YAMASHITA ET AL. Office Action Summary Examiner Art Unit MARK D. FEARER 2143 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 19 February 2008. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-9 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) \_\_\_\_\_ is/are allowed. 6) Claim(s) 1-9 is/are rejected. 7) Claim(s) \_\_\_\_\_ is/are objected to. 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are; a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some \* c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). \* See the attached detailed Office action for a list of the certified copies not received. Attachment(s)

1) Notice of References Cited (PTO-892)

Notice of Draftsperson's Patent Drawing Review (PTO-948)

Interview Summary (PTO-413)
 Paper No(s)/Mail Date. \_\_\_\_\_.

6) Other:

5) Notice of Informal Patent Application

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#### DETAILED ACTION

- Applicant's Amendment filed 19 February 2008 is acknowledged.
- Claims 1-9 are pending in the present application.
- This action is made FINAL.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- Determining the scope and contents of the prior art.
- Ascertaining the differences between the prior art and the claims at issue.
- Resolving the level of ordinary skill in the pertinent art.
- Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later.

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction").

Consider claims 1, 8, and 9, Vilaghy et al. discloses a relay processing apparatus for relaying communications between a control program that generates control commands for a terminal and a process for an HTTP server program that returns to said terminal a command constituting an HTTP response to a HTTP request received from said terminal, comprising; a terminal request processor for initiating said control program upon the reception of a function call from said HTTP server program that initially received said HTTP request from the terminal (("Web component tier. This tier gets client requests (HTTP.HTTPS), analyzes the requests and decides to respond with a file (HTML, images) or calls a program (servlet) to do some part of the server-side processing requested by the client. Generally the servlet acts as the Controller (controls the whole application flow), then calls a JavaServer Page (JSP) to dynamically generate the HTML response (the presentation or View) to be sent back to the client.") page 23); means in the terminal request processor responsive to the reception notification, for returning the first command to said HTTP server program, and means in the HTTP server program for returning said command to the terminal in said HTTP response issued for said HTTP request (("The response created by the servlet is passed back to the HTTP server. The HTTP server passes back the response produced by the servlet to the client. If the client is a browser, the response will contain HTML formatted data.")

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page 124). However, the Web component tier fails to disclose an HTTP server receiving an HTTP request or a control request processor for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received. Vilaghy et al. further discloses a CICS WebServer Plugin wherein an HTTP Server receives the HTTP request (("The CICS WebServer Plugin replaces the functionality of the CWS Web attach transaction, described previously. The IBM HTTP Server for z/OS has to be configured with a service directive in order to function with the CICS WebServer Plugin. This configuration is described in the CICS Internet Guide. SC34-5713. Using this service directive, the HTTP Server receives the HTTP request, builds an EXCI request, and invokes the BLI using the CSMI mirror transaction in the target CICS region. The HTTP data stream is passed to the BLI in an EXCI COMMAREA.") page 154), and a control request processor for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received (("WebSphere manages and runs servlets and JSPs that contain the presentation logic to format the data coming from the back-end systems. WebSphere will provide a container to run Enterprise Java Beans (EJBs). This container provides transactional and other services. The servlets or JSPs invoke the EJBs. The EJBs contain the new, transactional business logic, and the servlets/JSPs should only contain presentation logic. The EJBs can connect to back-end systems using connectors.") page 67).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a CICS WebServer Plugin wherein an HTTP Server receives the HTTP request and servlets and JSPs that contain the presentation logic to format the data coming from the back-end systems as taught by Vilaghy et al. with a Web component tier that gets client requests (HTTP,HTTPS), analyzes the requests and decides to respond with a file (HTML, images) or calls a program (servlet) to do some part of the server-side processing requested by the client and a response created by a servlet is passed back to an HTTP server and the HTTP server passes back the response produced by the servlet to the client, and if the client is a browser, the response will contain HTML formatted data as taught by Vilaghy et al. for the purpose of a relay processing apparatus wherein an HTTP client can communicate with a back-end application.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Hoffman (US 6728769 B1).

Regarding claim 2, and as applied to claim 1 above. Vilaghy et al. shows and discloses a relay processing apparatus comprising means in the control request processor (figure 13-8, page 162) for transmitting the results from the first command to the control program, and means in the control program for performing a process corresponding to said results from the first command (("Aside from just formatting the output, servlets (read as control program) might need to talk to EJBs (read as request processor) to get data from databases or invoke transactions.") page 125). However,

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Vilaghy et al. fails to disclose means in the terminal for transmitting to the HTTP server program a second HTTP request that includes results from the first command. Hoffman discloses sending a second HTTP request that includes a flag indicating that an update has been successful (("Once the appropriate data has been received by the JSP 242. the JSP 242 directs that that WEB server 204 update the server-side data base 208 according to the selected input. In response, the WEB server 204 sends an HTTP response to the applet 228 by way of the JSP 242 directing the browser 214 to update only an update icon 244 indicating that the server side database 208 has been successfully updated. In this way, the user experiences a substantially real time interaction since the update icon immediately reflects the effects of the user supplied input data on the data base 208 without the need to refresh the entire, or even a substantial portion of the WEB page.") column 5 lines 60-67 and column 6 lines 1-4 ("... generating a second http request by the http request generator, wherein the second http request includes a database update successful flag indicating that the database has been successfully updated; sending the second http request interaction applet; and updating the update icon only by the interaction applet indicating that the database has been successfully updated. ") claim 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate sending a second HTTP request indicating a successful update as taught by Hoffman with a means for sending a command and performing a process as taught by Vilaghy et al. for the purpose of application verification.

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Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Vilaghy et al. (" e-business Cookbook for z/OS Volume I. Technology Introduction" ) in

view of Chakraborty et al. (US 20040107282 A1).

Consider claims 3 and 4, and as applied to claim 1 above. Vilaghy et al. discloses means responsive to a program for shifting a processor into a halted state while maintaining an execution state after a function; and means responsive to a notification from a processor for recovering from said halted state (("According to normal component-to-component communication, calls happen synchronously. This means that a component calls another component using the RMI-IIOP procedure, and during the call the client or caller waits till the server or the called party finishes.") page 138) and returning processing control and the first command to said HTTP server program (1°5. The response created by the servlet is then passed back to the HTTP server.") page 124). However, Vilaghy et al. fails to disclose a means responsive to a following second function call from the HTTP server program. Chakraborty et al. discloses a method for preserving post data on a server system wherein once a user has authenticated with correct credentials (such as a login and password), the request goes back to the browser from where the user submitted the request, and an agent intercepts the request through a server application function for a second time (("FIG. 5B is a diagram illustrating an exemplary communication pathway between a browser, an agent and an identity server during a GET request and authentication in accordance with an embodiment of the present invention. The browser (C) communicates with an

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authentication server to authenticate the user in step 512. In one embodiment of the present invention, the authentication server is a Sun One identity server. Once a user has authenticated with the correct credentials (such as a login and password), the request goes back to the browser from where the user submitted the request. The agent intercepts the request through a server application function (SAF) for the second time.") paragraph 0051).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a method for preserving post data on a server system wherein once a user has authenticated with correct credentials (such as a login and password), the request goes back to the browser from where the user submitted the request, and an agent intercepts the request through a server application function for a second time as taught by Chakraborty et al. with means responsive to a program for shifting a processor into a halted state while maintaining an execution state after a function; and means responsive to a notification from a processor for recovering from said halted state and returning processing control and the first command to said HTTP server program as taught by Vilaghy et al. for the purpose of secure authentication.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Devine et al. (US 6598167 B2).

Regarding claim 5, and as applied to claim 1 above. Vilaghy et al. shows and discloses a relay processing apparatus wherein an HTTP failure response message is

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sent to the terminal (("The login-config element specifies the type of authentication to be used and any associated data, such as login and error pages for form-based authentication.") page 84). However, Vilaghy et al. fails to disclose a terminal request processor comprising means responsive to a non-receipt of said reception notification from said control request processor within a predetermined period of time. Devine et al. discloses monitoring heartbeats for a predetermined period of time and determining a process to be closed if the heartbeats fail to respond (("For example, a keep alive message is sent every predefined period, e.g., 1 minute from a client application to the server. When the client application fails to heartbeat consecutively for a predetermined period of time, for example, one hour, the server treats this client application as having exited by closing the application and performing cleanup routines associated with the application.") column 4 lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate monitoring heartbeats for a predetermined period of time as taught by Devine et al. with error pages as taught by Vilaghy et al. for the purpose of event notification.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Perlman et al. (US 6510523 B1).

Regarding claim 6, and as applied to claim 1 above. Vilaghy et al. shows and discloses a relay processing apparatus according to claim 1. However, Vilaghy et al. fails to disclose a certification request message for requesting the preparation of an

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electronic certificate that authenticates a terminal in accordance with a command received from a control program. Perlman et al. discloses a system wherein certificates are requested from a device, generated, and granted. This reads on the claimed "requesting the preparation of an electronic certificate that authenticates said terminal ... in accordance with a command received from said control program ... means to transmit a signature addition command to said terminal containing an electronic signature." (("Credentials server 120 is a device (e.g., server) connected to network 150 that is capable of generating credentials (e.g., a private key and a public key certificate) trusted by one or more remote terminals. Credentials server 120 issues credentials to a user to permit privileged operations. These credentials typically include public key certificates.") column 4 lines 38-44 ("Having established a secure communications channel, the user communicates with credentials server 120 using the untrusted terminal. In one implementation, the user can request credentials, such as a private key and a public key certificate, from credentials server 120, with which the user is registered. Both the private key and the public key may be represented as an alphabetic or numeric record (e.g., a 64-bit number). Although the private key is kept secret, the public key may be published. In another implementation, the private and public keys can be generated by the untrusted terminal. In this instance, the public key is sent to credentials server 120 so that it can generate a certificate for this key... In many public key systems, public keys are verified and access is granted based on a chain of certificates. With such systems, the credentials might include one or more certificates that complete such a chain. For instance, the credentials may include a

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chain of identity certificates to establish the name associated with a given public key. In addition, the credentials may include one or more delegation certificates delegating privileges associated with one key to another key. For instance, the user may sign a delegation certificate for the credentials server, which may sign a delegation certificate for the untrusted terminal. Either or both of these delegation certificates may include limited privileges. Alternatively, the credentials server might have a copy of the user's private key and use this to directly sign a delegation certificate for the untrusted terminal.") column 5 lines 55-67 and column 6 lines 1-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate generating an identity certificate as taught by Perlman et al. with a means for sending a command and performing a process as taught by Vilaghy et al. for the purpose of secure authentication.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Perlman et al. (US 6510523 B1) and in further view of Kanemaki et al. (US 20020138761 A1).

Regarding claim 7, and as applied to claim 6 above. Vilaghy et al., as modified by Perlman et al., shows and discloses an apparatus of claim 6, comprising an information storage unit (("Storing your e-business files on high performance storage can alleviate I/O bottlenecks that exist on other platforms") Vilaghy et al., page 47 and Figure 3-2). However, Vilaghy et al., as modified by Perlman et al., fails to disclose an apparatus of claim 6, wherein the terminal request processor further comprises means for receiving a

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second function call containing a certification request message and an electronic signature from said HTTP server program as a response by the terminal to said signature addition command, and means for forwarding a notification to that effect to said control request processor; means in the control request processor responsive to the notification of receipt of the second function call for transmitting said certification. request message to said control program; and means in said terminal request processor for transmitting an electronic certificate received from said control program. Kanemaki et al. discloses an authentication system wherein a second transaction (function call) is made upon receiving results of signature information after first transaction (("... authentication apparatus holding information relating to a first transactor and authenticating a transaction between said first transactor and a second transactor performed via a network while communicating with another authentication apparatus holding information relating to said second transactor, comprising a transmitting and receiving means for transmitting a second request including information specifying said second transactor in response to a first request from said first transactor including information indicating said transaction content and information specifying said second transactor to said second authentication apparatus, receiving first signature information indicating an authentication result by said second authentication apparatus in response to said second request, transmitting a third request including information relating to said transaction content included in said first request and said first signature information to an apparatus used by said second transactor, and receiving a predetermined reply from an apparatus used by said second transactor in response to the related third request, a

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storage means for storing a log of said transaction when receiving said predetermined reply, and a signature producing means for producing second signature information to be transmitted to the apparatus used by said first transactor via said transmitting and receiving means when receiving said predetermined reply and indicating the authentication result of the legitimacy of said transaction.") paragraph 0050).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a second certification request and an electronic signature as taught by with a means for sending a command and performing a process as taught as taught by Vilaghy, as modified by Perlman et al., for the purpose of secure authentication using digital certificates.

### Response to Arguments

Applicant's arguments filed 19 February 2008 with respect to claims 1 and 8-9 have been considered.

Applicants respectfully submit that the Examiner has either (i) improperly relied upon two reference in a rejection under 35 U.S.C. § 102 or (ii) failed to properly state an obviousness rejection under 35 U.S.C. § 103 and make the CICS Internet Guide reference of record and available for Applicants' review.

Examiner Response:

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Examiner made a typographical error in the Office Action of 19 November 2007. Page 3 of said Office Action improperly stated that Claims 1 and 8-9 were rejected under 35 U. S. C. 102(b) and page 8 of said Office Action improperly stated that Claims 3-4 were rejected under 35 U. S. C. 102(b). This was in error and should have read 35 U. S. C. 103(a). Examiner points out, however, that the 35 U. S. C. 103(a) rejection should have been obvious because the only Claim Rejection heading in the entire action was 35 USC 103 and the rejections of Claims 1, 3-4 and 8-9 end with a motivation to combine paragraph. The current Office Action has corrected this error and has rejected Claims 1, 3-4 and 8-9 under 35 U. S. C. 103(a).

So as to greatly aid in Applicants consideration of the Examiner's cited references. Applicants respectfully request that the Examiner specifically identify, within each reference cited by the Examiner, each feature being relied upon in the Examiner's analysis to allegedly teach the following claimed limitations: (i) control program, (ii) terminal, (iii) HTTP server program, (iv) terminal request processor, (v) control request processor, (vi) a notification that a first command has been received, (vii) returning the first command to the HTTP server program, and (viii) returning the command to the terminal in the HTTP response.

Examiner Response:

(i) control program

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Vilaghy et al. discloses a multi-tier J2EE architecture comprising program servlets that control application flow (("Web component tier. This tier gets client requests (HTTP, HTTPS), analyses the requests and decides to respond with a file (HTML, images) or calls a program (servlet) to do some part of the server-side processing requested by the client. Generally the servlet acts as the Controller (controls the whole application flow), then calls a JavaServer Page (JSP) to dynamically generate the HTML response (the presentation or View) to be sent back to the client.") Vilaghy et al., page 23).

#### (ii) terminal

Vilaghy et al. discloses a CICS (Customer Information Control System) transaction server comprising a web terminal program (Vilaghy et al., page 156) and terminal servlet 3270 emulator (Vilaghy et al., page 157).

### (iii) HTTP server program

Vilaghy et al. discloses a dynamic HTTP server comprising servlet programs (("8.3 Ways to access the HTTP server. All HTTP servers are meant to be connected to the Internet or an intranet. Therefore, it is logical that the way to access an HTTP server is always TCP/IP, which forms the backbone of Internet addressing. Over TCP/IP, though, there can be other protocols. The most common one is the HyperText Transfer Protocol (HTTP). Communication protocols. The following protocols are supported by all HTTP servers: HyperText Transfer Protocol (HTTP). HTTP is an application-level protocol. It is a generic, stateless protocol that can be used for many tasks beyond its use for Hypertext, although this is its more extended and general use. A feature of HTTP is the

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typing and negotiation of data representation, allowing systems to be built independently of the data being transferred. Although connectionless, the HTTP 1.1 specification defines a persistent connection concept that makes the HTTP server hold a connection for a while, therefore making it more efficient if more requests are coming from the same client. HyperText Transfer Protocol Secure (HTTPS). HTTPS is a Web protocol that encrypts and decrypts user page requests as well as the pages that are returned by the HTTP server, HTTPS uses the Secure Socket Laver (SSL) as a sublayer under the regular HTTP application layer. By using powerful encryption algorithms, SSL makes possible the secure transport of sensitive date. HTTPS uses port 443 instead of HTTP port 80 in its interactions with the lower layer, TCP/IP. The use of two different ports allows for the use of a single IP address for a given e-business Web site and makes the switching between secure and non-secure modes fairly simple. 8.4 How the HTTP Server works. Although its original function was mainly to serve static HTML pages (or files) to a browser, today many of the HTML pages that it sends to the client are dynamically built by other components. 1. The HTTP server receives the client request (usually after passing a firewall), 2. By comparing the incoming URL with directives in the httpd.conf file, the HTTP server routes the request in one of the following three ways: a. If the request is for a static file (as above) the HTTP server will return the static file to the requestor, b. If the request is not related to serving a static file, but is output to be created dynamically (servlet or JSP), the HTTP server passes the request to the WebSphere Application Server plugin, c. If the request is for a CGI

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application, the request is passed to the application. 3. All output and imbedded files are returned to the browser client by the HTTP server.") Vilaghy et al., pages 112-113).

# (iv) terminal request processor

Vilaghy et al. discloses a WebSphere Plugin comprising a web container (read as a terminal request processor) that receives requests coming from the HTTP server, performs logic on said requests, then passes said requests on to an EJB container (read as a control request processor) (("Using the WebSphere 4.0.1 Plugin, you can access servlets running in a Web container on the J2EE Application Server, which can then access EJBs in an EJB container running in the same J2EE Application Server. Support for the WebSphere Plugin environment allows you to migrate from a WebSphere 3.5 Plugin configuration to WebSphere 4.0.1 Plugin configuration using the Web container in the J2EE Application Server. The ability to run both servlets and EJBs within the same address space allows you to maintain the different parts of your e-business in a central location. 1. The HTTP Server receives the request and passes it to the WebSphere 4.0.1 Plugin. 2. The WebSphere Plugin recognizes that it doesn't have a definition statement (deployed Web application) for the JSP. 3. The request is then passed to the appropriate Web container.") Vilaghy et al., page 133).

# (v) control request processor

Vilaghy et al. discloses a WebSphere Plugin comprising servlets that, when run, locates an appropriate EJB (read as a control request processor). The EJB can connect to the backend system (("Using the WebSphere 4.0.1 Plugin, you can access servlets running

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in a Web container on the J2EE Application Server, which can then access EJBs in an EJB container running in the same J2EE Application Server. Support for the WebSphere Plugin environment allows you to migrate from a WebSphere 3.5 Plugin configuration to WebSphere 4.0.1 Plugin configuration using the Web container in the J2EE Application Server. The ability to run both servlets and EJBs within the same address space allows you to maintain the different parts of your e-business in a central location. 4. When the actual servlet runs, it can use the Naming Server to locate the appropriate EJB. 5. The EJB can use the Java 2 Connector Architecture to connect to the backend system.") Vilaghy et al., page 133).

## (vi) a notification that a first command has been received

Vilaghy et al. discloses Beans which comprise Events which provide a notification mechanism between JavaBeans to announce that something has happened or is about to happen (("Beans that haven't "met" before can learn each other's properties dynamically and act accordingly. Customization: This allows developers to customize the appearance and behavior of the JavaBean using a "property sheet" provided by the Bean developer and the visual programming tool. Events: These provide a notification mechanism between JavaBeans to announce that something has happened or is about to happen. Properties: These are similar to attributes, but they add the ability to broadcast a notification when the property changes. Persistence, or serialization: This allows a JavaBean to be customized (for example changing the account balance in our earlier example) and then saved for later use. However, this refers to the JavaBean being saved in memory only.") Vilaghy et al., page 16).

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(vii) returning the first command to the HTTP server program and (viii) returning the command to the terminal in the HTTP response.

Vilaghy et al. discloses HTTP Transport Handler which manages incoming HTTP requests and passes control requests for servlets and JSPs running in the Web container. Said Transport Handler assumes that some client browser interface exists in front of the Transport Handler to handle the nuances between different browsers on the client side (Response in Figure 10-4 read as returning said command to HTTP server and client terminal) (("Using the HTTP Transport Handler. The HTTP Transport Handler provides a performance enhancement if you run your Web application in the Web container. It manages incoming HTTP requests and passes control requests for servlets and JSPs running in the Web container faster than a separate HTTP server on z/OS. The Transport Handler assumes that some client browser interface exists in front of the Transport Handler to handle the nuances between different browsers on the client side.") Vilaghy et al., page 134 and Figure 10-4).

#### Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be faxed to (571) 273-8300 or mailed

to:

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window Randolph Building 401 Dulany Street Alexandria. VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Mark Fearer whose telephone number is (571) 270-1770. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for

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the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Mark Fearer M.D.F./mdf July 2, 2008

/Ashok B. Patel/ Primary Examiner, Art Unit 2154